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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,511	03/12/2004	Tomoaki Hiwatashi	Q80390	6398

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EXAMINER

ASINOVSKY, OLGA

ART UNIT PAPER NUMBER

1711

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,511

Applicant(s)

HIWATASHI ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Upon the amendment of 07/06/2006 and applicants' Remarks, the rejection under 112(2nd) paragraph is withdrawn.

The cancellation of claims 2-3 and 5 is noted.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 8-10, 15-16, 25, 26, 27, 29 and 34-35 are rejected under 35

U.S.C. 102(b) as being anticipated by Matyjaszewski et al U.S. Patent 5,807,937.

The rejection is set forth at pages 2-4 of the office action mailed on 01/06/2006 and it is incorporated here by reference.

Response to Arguments

3. Applicant's arguments filed 07/06/2006 have been fully considered but they are not persuasive. Argument is that Matyjaszewski does not disclose or render obvious the cosmetic polymer composition of the present invention.

With respect to Matyjaszewski invention, the reference does disclose copolymers that are useful in a wide variety of applications including cosmetics and hair products, column 6, line 57.

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Applicants argue that a preferred monomer for forming a block is N-vinyl pyrrolidone in Matyjaszewski invention, col. 16, line 67, and other preferred monomer is 2-ethylhexyl acrylate (EHA), col. 17, line 2, that both of said monomers are omitted upon the amendment. Although, these two monomers are preferred, the issue in the Patent 5,807,937 is a controlled free radical polymerization process for "any radically polymerizable monomer" having the formula at column 14, line 50. The radically polymerizable alkene having said formula at column 14, line 50 wherein at least one radical R3 or R4 is COOH includes a carboxylic acid, column 15, lines 15-16. The block formed from carboxylic acid ($CR_1R_2=CR_3COOH$) is hydrophilic for the present claim 1 and claim 4 (1), see also column 22, lines 55-64 and column 24, lines 37-40. The hydrophilic unit formed from carboxylic acid monomer is readable in the hydrophilic group monomers claimed under Markush group practice in the present claims.

With regard to applicants' argument about preferred 2-ethylhexyl acrylate monomer, this polymerizable monomer can also be present as polymerizable monomer for forming hydrophobic unit. The monomer 2-ethylhexyl acrylate is readable in the present claims 27 and 29. Matyjaszewski does disclose block copolymer having a straight-chain block copolymer structure defined as di- and tri-block copolymers and having at least one hydrophilic unit.

With regard to applicants' argument about N-vinyl pyrrolidone as preferred monomer, this polymerizable monomer can also be present as additional polymerizable monomer. The N-vinyl pyrrolidone is readable in the present claim 16(1) and claims 17-18. Any additional polymerizable ethylenically unsaturated monomer(s) would be expected for

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producing multi-block copolymers, column 25, lines 44-45, for the present claims 34-35.

The copolymer can be used in cosmetic and hair product applications.

The invention as claimed is fully anticipated by the disclosure in Matyjaszewski invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 11-14, 17-24, 28, 30-33, 36-37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matyjaszewski et al U.S. Patent 5,807,937 as applied to claims 1, 4, 8-10, 15-16, 25-27, 29 and 34-35 above, and further in view of Hayama et al U.S. Patent 6,123,933.

The rejection is set forth at pages 8-10 of the office action mailed on 01/06/2006 and it is incorporated here by reference.

Matyjaszewski discloses a polymerization process for "any radically polymerizable monomer" having the formula at column 14, line 50.

The block copolymer in Matyjaszewski invention can have a hydrophilic unit such as formed from carboxylic acid and a hydrophobic unit such as 2-ethylhexyl acrylate, for the present claims 27 and 29. Matyjaszewski discloses a process for producing a

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polymer having predictable and controllable properties suitable for use for desired applications.

It would have been obvious to one of ordinary skill in the art to select the polymerizable monomers for forming a hard block A having a high Tg of 25 C or higher and a soft block B having a low Tg of 25 C or lower in Matyjaszewski invention because reference discloses a variety of polymerizable monomers having different Tg for forming a di-block, tri-block or multi-block copolymer, and the resulting block copolymer can be used for the same utility such as in cosmetic or hair product.

Both references disclose compositions useful for cosmetic and hair product.

Any additional polymerizable ethylenically unsaturated monomer(s) would be expected for producing a cosmetic composition or hair product composition in Matyjaszewski invention. The amount of the polymerized hydrophilic monomer and hydrophobic monomer is controlled by the polymerization process condition and by desired characteristic for the specified applications.

Matyjaszewski does not disclose a film-forming article having a Young's modulus and a fracture-point elongation specified in the present claims 11-12.

Since Matyjaszewski discloses a block copolymer which can be used in a wide variety of applications, column 6, lines 45-61, it is reasonable to presume that a block copolymer can be used as a film-forming composition, wherein a formed film has a Young's modulus and a fracture-point elongation specified in the present claims 11-12, because a copolymer composition in Matyjaszewski invention can be used in cosmetics

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and hair products, and since the claimed Young's modulus and a fracture-point elongation are depending on the desired polymerizable monomers and an amount of said monomers for producing the desired hydrophilic/hydrophobic block copolymers.

Also, Matyjaszewski does not disclose an addition of an amine-oxide-group-containing unsaturated monomer represented by the formulae in the present claim 22.

Hayama discloses a hair cosmetic composition comprising an amine-oxide-containing water-soluble resin, column 2, lines 44-67 and column 3, lines 17-67 and/or a betaine-derivative as a surfactant, and/or a silicon derivative, column 11, lines 19-21 and column 12, lines 34-35.

It would have been obvious to one of ordinary skill in the art to modify a block copolymer in Matyjaszewski invention by employing an additional unsaturated monomer such as a betaine derivative as a surfactant and/or an amine-oxide-group-containing monomer, and/or silicone derivative disclosed in Hayama invention for the purposes to control the viscosity, solubility and the desired properties for a hair cosmetic composition, because any additional ingredient can be added for formulation cosmetic composition in Matyjaszewski invention, since the addition ingredient is depending on the specified application and the intended use of said application.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Olga Asinovsky
Examiner
Art Unit 1711

O.A

September 19, 2006


James J. Seidleck
Supervisory Patent Examiner
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